UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/072,549	05/05/98	LUDWIG L	COLB001/22US

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EXAMINER	
DINH,D	
ART UNIT	PAPER NUMBER
2153	26

DATE MAILED: 04/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/072,549	Applicant(s) LUDWIG ET AL.	
	Examiner Dung Dinh	Art Unit 2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-15,17-25 and 27-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7-15, 17-25, 27-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

Applicant's arguments and Declaration filed 1/16/2001 have been fully considered but they are not persuasive.

The issue: Applicant asserts Patentability over the prior art because the claims recite transmitting "TV quality" video over UTP wires and the prior is not capable of transmitting "TV quality" video UTP wires.

The examiner position is that the limitation of "TV quality" in the claims does not serve to place the claims patentable over the prior art because the specification lacks disclosure of any problem in transmitting "TV quality" video over UTP wires nor any teaching of how applicant has solved this problem.

Applicant response with arguments that the specification discloses in various section how application solved the problem of transmitting "TV quality" video over UTP wires. The argument is not persuasive because the disclosure merely disclose high level overview of the signal routing mechanism used in applicant video conferencing arrangement. The specification simply recite A/V transceiver and various in and out ports. The arrangement is applicable to transmission of any type of video signal.

There is no teaching of how this arrangement solves the problem of transmitting "TV quality" video.

The Declaration submitted 1/16/2001 is not persuasive to provide support for the enabling teaching of the "TV quality" video transmission in the current specification because:

Applicant stated that he (the inventors) has conceived a system included the transmission of TV quality video over UTP. One aspect of the conceived system is the recognition that one could use a common node filter, such as one in Graham patent 4,800,344 , to enable bandwidth over UTP necessary to transmit TV-quality video [Declaration page 2, paragraph 3]. The Graham patent is not directed at transmitting video signal [Declaration paragraph 6].

According the Declaration then, the recognition of using a common node filter such as that teaches by Graham is important in providing TV-quality video over UTP. However, nowhere is this feature disclosed in the current specification.

The Examiner maintains his position in that if the transmitting "TV quality" video over UTP wires is an inventive step and such a problem that is not solved by the prior art as

asserted by applicant, then the current specification is not enabling - i.e. it does not contain sufficient disclosure so as to enable one of ordinary skill in the art to implement the invention without undue experimentation.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

All pending claims are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for transmission of video signal over UTP, does not reasonably provide enablement for transmitting "TV-quality" video over UTP. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 12-14, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verhoeckx et al. US patent 4,005,265.

As per claim 1, Verhoeckx teaches a video communication system comprising:

at least one analog video-signal source [abstract line 6];

at least one video display device [apparent];

at least one control communication component configured to produce digital control-signals [abstract line 5 - signaling signals];

an unshielded twisted pair of wires [telephone wire] defining a UTP communication path [~~col.20~~ line 20+], arranged for video-signal transportation,

wherein the system is configured to

multiplex analog video-signals originate at one of the video-signal sources with digital controls from of the control communication component [lines 19-27 'via a single pair of cable'];

transmit the multiplexed signals along the UTP communication path to the at least one video display devices [apparent];

use the control signals to control reproduction of video images, based on the video signals, on the one of the video displays [col.5 lines 17-35].

Verhoeckx teaches the color [col.3 line 9] video images is reproduced at TV quality [col.7 line 32: 25Hz].

Verhoeckx does not teach the UTP wire being included as part of a computer network. Verhoeckx teaches using the existing UTP wire of a telephone network. The "computer network" as recited in the claim is merely nominal recitation. There is no functional relationship tying the elements of the claims to the "computer network". The recited elements would function exactly the same way over a UTP path separate from that of a "computer network". Hence, integrating the video UTP path with an existing UTP computer network path would have been a matter of design choice. It would have been obvious for one of ordinary skill in the art to apply Verhoeckx teaching in a computer network because it would have enabled video transmission over existing paths and reduced the need to run new wires.

As per claims 12 and 21, they are rejected under similar rationale as for claim 1 above,

As per claims 13 and 14, Verhoeckx teaches multiplexing the audio and switching signal onto the UTP communication path [col.3 lines 19-27].

Claims 21-25, 1-5, 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tompkins et al. US patent 4,847,829 and further in view of Verhoeckx et al US patent 4,005,265.

As per claim 21, Tompkins teaches

A video communication system for operation with an infrastructure including

at least one analog video-signal source [fig.2 camera];

at least one video display device [fig.2 view finder 14]; and

coaxial wire defining a communication path arranged for video signal transportation [col.3 lines 10-20],

the system comprising:

(a) at least one control communication component [col.2 line 67 'controller'] configured to, produce digital control-signals [line 57,68 'data communication']; and

wherein the system is configured to

(i) multiplex [col.3 lines 10-28]

(1) analog video-signals,

originating at a video-signal source,

(2) with digital control-signals

from one of the control communication components,

(ii) transmit the multiplexed signals

(1) along the communication path;

(2) to at least one of the video display devices;

Tompkins does not specifically teach using twisted pair communication path for transmission of the video. Tompkins preferred embodiment uses coaxial cable [col.3 lines 10-20]. Verhoeckx teaches transmission of video signal over existing twisted pair wire to save cost [col.1 lines 20-25]. Hence, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teaching of Verhoeckx with Tompkins to enable transmission of video conference signal over twisted pair instead of coaxial cable because it would have reduces cost. Verhoeckx teaches using digital control signal to control reproduction of video images at one of the video display devices [Verhoeckx col.3 lines 18-27].

Tompkins teaching using NTSC format. Hence it is apparent that video is color at TV quality.

rhoeckx does not teach using the UTP path of an existing computer network. Verhoeckx uses the existing UTP wire of a telephone network. The "computer network" as recited in the claim is merely nominal recitation. There is no functional relationship tying the elements of the claims to the "computer network". The recited elements would function exactly the same way over a UTP path separate from that of a "computer network". Hence, integrating the video UTP path with an existing UTP computer network path would have been a matter of design choice. It would have been obvious for one of ordinary skill in the art to apply Tompkins teaching to transmit over UTP wire of a computer network because it would have enabled video transmission over existing paths and reduced the need to run new wires.

As per claim 22, Tompkins teaches multiplexing analog audio onto the communication path [col.3 lines 10-20].

As per claim 23, Tompkins teaches controlling a switch to route the multiplexed signal along the communication path [col.3 lines 29-42].

As per claim 24, Tompkins teaches a server controlling the switch [col.3 lines 29-42 "network master"].

As per claim 25, it is inherent in the operation of Tompkins teaching that audio/video from a first station is configured to reproduce at a second workstation.

As per claims 1-5, and 12-15, they are rejected under similar rationale as for claims 21-25 above.

Claims 27, 7, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tompkins & Verhoeckx et al and further in view of Ramanathan "Optimal communication Architectures for Multimedia Conferencing in Distributed Systems".

As per claim 27, Tompkins does teach combining video images to produce a mosaic image. Tompkins only enable one video source to be display at a time. Ramanathan teaches to create mosaic video image to reduce bandwidth to enable participant to see multiple video stream simultaneously in a teleconference system. It would have been obvious for one of ordinary skill in the art at the time of the invention to provide mosaic creation means with Tompkins system because it would have enable the participant to see more than one of the other participants in the conference and enable better interaction of the participants.

As per claims 7 and 17, they are rejected under similar rationale as for claim 27 above.

Claims 28, 8, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tompkins & Verhoeckx & Ramanathan et al and further in view of Rangan et al. "Software Architecture for Integration of Video Services in the Etherphone System".

As per claim 28, Tompkins does not teach a graphical user interface to enable selection of a user and the conference type. It is known in the art to provide selection of user and conference type [see Rangan et al.]. It would have been obvious for one of ordinary skill in the art to provide graphical interface for the selection of user and conference type because it would have enable a user friendly and flexible initiation of a conference call.

As per claims 8 and 18, they are rejected under similar rationale as for claim 28 above.

Claims 29-31, 9-11, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tompkins & Verhoeckx & Ramanathan et al and further in view of Stefik et al. "Optimal Communication Architectures for Multimedia Conferencing in Distributed Systems".

As per claim 29, Tompkins does not specifically disclose a data conferencing along with the audio/video conferencing.

Tompkins discloses that the system is capable of transmitting baseband data signals [col.6 lines 40-63] and can function in conjunction with standard data network (LAN). It is known at the time of the invention to provide data conferencing for collaboration and problem sharing over a data network [see Stefik et al.]. It would have been obvious for one of ordinary skill in the art at the time of the invention to provide a data collaboration tool with Tompkins system because it would have enable the user to collaborate and share data while using the audio/video conferencing.

As per claim 30, it would have been obvious for one of ordinary skill in the art to have the data conferencing signal and video display on separate windows on the display device because it would have enable the user to have multiple view simultaneously. At the time of the present invention, it is known to have Operating System (e.g. Microsoft Windows, X-window, etc.) with built in capability for displaying multiple application windows. Hence, the user of this workstation inherently has the capability for displaying the data conferencing and audio/video conferencing in separate windows.

As per claim 31, it is apparent that the system as modified would display the data conference signal interactively at least

two display devices [at the initiator and at least one other receiver].

As per claims 9-11, and 19-20, they are rejected under similar rationales as for claims 29-31 above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Dinh whose telephone number is (703) 305-9655. The examiner can normally be reached on Monday-Thursday from 7:00 AM - 4:30 PM. The examiner can also be reached on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached at (703) 305-4792.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Any response to this ~~final~~ action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 308-9051, (for formal communications;)

(703) 305-9731 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Dung Dinh
Primary Examiner
April 8, 2001